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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,827	02/12/2002	Edward C. McKinney JR.	SHPR-01041USQ	8062
23910	7590	12/21/2004	SRM/SDS	
FLIESLER MEYER, LLP FOUR EMBARCADERO CENTER SUITE 400 SAN FRANCISCO, CA 94111			EXAMINER TRAN, THAO T	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/074,827

Applicant(s)

MCKINNEY ET AL.

Examiner

Thao T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-22,30-35 and 37-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-22,30-35 and 37-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/22/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 22, 2004 has been entered.
2. Claims 1, 4-22, 30-35, 37-49 are currently pending in this application.

Claim Objections

3. In view of the prior Office action of 3/25/04, the objection of claim 35 has been withdrawn due to the amendments made thereto.

Claim Rejections - 35 USC § 102

4. In view of the prior Office action of 3/25/04, the rejection of claims 8-10, 14-17, 20-21, 31-35, and 37-38, 40-49, under 35 U.S.C. 102(b) as being anticipated by Lee (US Pat. 4,789,801), has been withdrawn due to further consideration.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 4-22, 30-35, and 37-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US Pat. 4,789,801).

In regards to claims 1, 4-5, 8-10, 14-17, 20-21, 30-35, 37-49, Lee teaches all the second electrodes being at equal distance from the first array (see Fig. 4-6). Although Lee does not teach the inner second electrodes being positioned at a greater distance downstream from the first array than the outermost second electrodes, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the distance of the second electrodes to the first would have been an art-recognized variable determined by routine experimentation.

Lee teaches an air conditioner (loud speaker), comprising a housing; a voltage generator; a first array of electrodes 74; a second array of electrodes 72 located downstream and in staggered relation to the first array; wherein the second electrodes are evenly spaced apart from each other (see Figs. 4-6; col. 6, ln. 43-56). The first electrodes are ion emitters and curved wires; the second electrodes are ion collectors and curved rods.

Lee further teaches the second electrodes to be of equal size (see Fig. 3-6) and that the second electrodes include a nose that is closer to the first electrodes; wherein the substantially flat surface of each second electrode extends downstream from the first array (see Fig. 3).

In regards to claims 6-7, 11-12, 18-19, 22, Lee further teaches an array of electrodes interposed between the second electrodes (see Fig. 3). Lee does not teach the additional electrodes to be upstream of the first electrodes or downstream of the second electrodes. However, it would have been obvious to one of ordinary skill in the art, at the time the invention

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was made, that the position of these additional electrodes would have been an obvious matter of design choice, since Applicants have not disclosed the advantages of a particular position of the additional electrodes over other positions.

In regards to claim 13, Lee does not specify the distance between the second electrodes from the outlet. However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the distance of the second electrodes to the outlet would have been an art-recognized variable determined by routine experimentation.

Response to Arguments

7. Applicant's arguments filed 9/22/2004 have been fully considered but they are not persuasive.

Throughout the Remarks, Applicants contend that Lee does not teach the inner second electrodes being at a greater distance downstream from the first array than the outermost second electrodes. This contention is correct. However, as pointed out in paragraph 6 above, a slight rearrangement of the second electrodes with respect to each other would not have significant patentable weight. Moreover, how the electrodes are positioned would have insignificant patentable weight since the position of a part would have been determined by routine experimentation.

With respect to the arguments that Lee does not teach the second electrodes being electrically connected to one another, Applicants are referred to Fig. 3-6 where the reference does illustrate that the second electrodes are electrically connected to one another.

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Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tt
November 29, 2004


THAO T. TRAN
PATENT EXAMINER